

## **SEQUENCE LISTING**

<110> Maihle, Nita Reiter, Jill Baron, Andre

<120> SOLUBLE EPIDERMAL GROWTH FACTOR RECEPTOR-LIKE PROTEINS AND

THEIR USES IN CANCER DETECTION METHODS

<130> TBIG

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<170> PatentIn version 3.0

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Leu Glu lie Thr Tyr Val Gln Arg Asn Tyr Asp Leu Ser Phe Leu Lys

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Thr lie Gin Giu Vai Ala Giy Tyr Vai Leu ile Ala Leu Asn Thr Vai

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Glu Arg lle Pro Leu Glu Asn Leu Gln lle lle Arg Gly Asn Met Tyr

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Tyr Glu Asn Ser Tyr Ala Leu Ala Val Leu Ser Asn Tyr Asp Ala Asn

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Ser Met Asp Phe Gln Asn His Leu Gly Ser Cys Gln Lys Cys Asp Pro 180 185 190

Ser Cys Pro Asn Gly Ser Cys Trp Gly Ala Gly Glu Glu Asn Cys Gln 195 200 205

Lys Leu Thr Lys lle lle Cys Ala Gin Gln Cys Ser Gly Arg Cys Arg 210 215 220

Gly Lys Ser Pro Ser Asp Cys Cys His Asn Gln Cys Ala Ala Gly Cys 225 230 235 240

Thr Gly Pro Arg Glu Ser Asp Cys Leu Val Cys Arg Lys Phe Arg Asp 245 250 255

Glu Ala Thr Cys Lys Asp Thr Cys Pro Pro Leu Met Leu Tyr Asn Pro 260 265 270

Thr Tyr Gln Met Asp Val Asn Pro Glu Gly Lys Tyr Ser Phe Gly 275 280 285

Ala Thr Cys Val Lys Lys Cys Pro Arg Asn Tyr Val Val Thr Asp His 290 295 300

Gly Ser Cys Val Arg Ala Cys Gly Ala Asp Ser Tyr Glu Met Glu Glu 305 310 315 320

Asp Gly Val Arg Lys Cys Lys Cys Glu Gly Pro Cys Arg Lys Val

Cys Asn Gly lie Gly lie Gly Glu Phe Lys Asp Ser Leu Ser lie Asn 

Ala Thr Asn Ile Lys His Phe Lys Asn Cys Thr Ser Ile Ser Gly Asp 

Leu His Ile Leu Pro Val Ala Phe Arg Gly Asp Ser Phe Thr His Thr 

Pro Pro Leu Asp Pro Gln Glu Leu Asp lle Leu Lys Thr Val Lys Glu 

lle Thr Gly Phe Leu Leu lle Gln Ala Trp Pro Glu Asn Arg Thr Asp 

Leu His Ala Phe Glu Asn Leu Glu lle lle Arg Gly Arg Thr Lys Gln 

His Gly Gln Phe Ser Leu Ala Vai Val Ser Leu Asn ile Thr Ser Leu 

Gly Leu Arg Ser Leu Lys Glu lle Ser Asp Gly Asp Val lle lle Ser 

Gly Asn Lys Asn Leu Cys Tyr Ala Asn Thr lle Asn Trp Lys Lys Leu 

Phe Gly Thr Ser Gly Gln Lys Thr Lys Ile Ile Ser Asn Arg Gly Glu 

Asn Ser Cys Lys Ala Thr Gly Gln Val Cys His Ala Leu Cys Ser Pro 

Glu Gly Cys Trp Gly Pro Glu Pro Arg Asp Cys Val Ser Cys Arg Asn 

Val Ser Arg Gly Arg Glu Cys Val Asp Lys Cys Lys Leu Leu Glu Gly 530 535 540

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Glu Cys Leu Pro Gln Ala Met Asn Ile Thr Cys Thr Gly Arg Gly Pro 565 570 575

Asp Asn Cys Ile Gln Cys Ala His Tyr Ile Asp Gly Pro His Cys Val 580 585 590

Lys Thr Cys Pro Ala Gly Val Met Gly Glu Asn Asn Thr Leu Val Trp 595 600 605

Lys Tyr Ala Asp Ala Gly His Val Cys His Leu Cys His Pro Asn Cys 610 615 620

Thr Tyr Gly Pro Gly Asn Glu Ser Leu Lys Ala Met Leu Phe Cys Leu 625 630 635 640

Phe Lys Leu Ser Ser Cys Asn Gln Ser Asn Asp Gly Ser Val Ser His 645 650 655

Gin Ser Gly Ser Pro Ala Ala Gin Glu Ser Cys Leu Gly Trp lle Pro 660 665 670

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Lys Leu Thr Lys lie lie Cys Ala Gin Gin Cys Ser Gly Arg Cys Arg

Ser Cys Pro Asn Gly Ser Cys Trp Gly Ala Gly Glu Glu Asn Cys Gln

Gly Lys Ser Pro Ser Asp Cys Cys His Asn Gln Cys Ala Ala Gly Cys 225 230 235 240

Thr Gly Pro Arg Glu Ser Asp Cys Leu Val Cys Arg Lys Phe Arg Asp 245 250 255

Glu Ala Thr Cys Lys Asp Thr Cys Pro Pro Leu Met Leu Tyr Asn Pro 260 265 270

Thr Thr Tyr Gin Met Asp Val Asn Pro Giu Gly Lys Tyr Ser Phe Gly 275 280 285

Ala Thr Cys Val Lys Lys Cys Pro Arg Asn Tyr Val Val Thr Asp His 290 295 300

Gly Ser Cys Val Arg Ala Cys Gly Ala Asp Ser Tyr Glu Met Glu Glu 305 310 315 320

Asp Gly Val Arg Lys Cys Lys Cys Glu Gly Pro Cys Arg Lys Val 325 330 335

Cys Asn Gly lie Gly Ile Gly Glu Phe Lys Asp Ser Leu Ser Ile Asn 340 345 350

Ala Thr Asn Ile Lys His Phe Lys Asn Cys Thr Ser Ile Ser Gly Asp 355 360 365

Leu His Ile Leu Pro Val Ala Phe Arg Gly Asp Ser Phe Thr His Thr 370 375 380

Pro Pro Leu Asp Pro Gln Glu Leu Asp Ile Leu Lys Thr Val Lys Glu 385 390 395 400

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His Gly Gln Phe Ser Leu Ala Val Val Ser Leu Asn Ile Thr Ser Leu 435 440 445

Gly Leu Arg Ser Leu Lys Glu lle Ser Asp Gly Asp Val lle lle Ser 450 455 460

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Phe Gly Thr Ser Gly Gln Lys Thr Lys IIe IIe Ser Asn Arg Gly Glu 485 490 495

Asn Ser Cys Lys Ala Thr Gly Gln Val Cys His Ala Leu Cys Ser Pro 500 505 510

Glu Gly Cys Trp Gly Pro Glu Pro Arg Asp Cys Val Ser Cys Arg Asn 515 520 525

Val Ser Arg Gly Arg Glu Cys Val Asp Lys Cys Lys Leu Leu Glu Gly 530 535 540

Glu Pro Arg Glu Phe Val Glu Asn Ser Glu Cys Ile Gln Cys His Pro 545 550 555 560

Glu Cys Leu Pro Gln Ala Met Asn Ile Thr Cys Thr Gly Arg Gly Pro 565 570 575

Asp Asn Cys lle Gln Cys Ala His Tyr lle Asp Gly Pro His Cys Val 580 585 590

Lys Thr Cys Pro Ala Gly Val Met Gly Glu Asn Asn Thr Leu Val Trp 595 600 605 Lys Tyr Ala Asp Ala Gly His Val Cys His Leu Cys His Pro Asn Cys 610 615 620

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Gly Thr Ser Asn Lys Leu Thr Gln Leu Gly Thr Phe Glu Asp His Phe 35 40 45

Leu Ser Leu Gin Arg Met Phe Asn Asn Cys Glu Val Val Leu Gly Asn 50 55 60

Leu Glu lle Thr Tyr Val Gln Arg Asn Tyr Asp Leu Ser Phe Leu Lys
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Thr Ile Gin Giu Val Ala Giy Tyr Val Leu Ile Ala Leu Asn Thr Val 85 90 95

Glu Arg lle Pro Leu Glu Asn Leu Gln lle lle Arg Gly Asn Met Tyr 100 105 110

Tyr Glu Asn Ser Tyr Ala Leu Ala Val Leu Ser Asn Tyr Asp Ala Asn

Lys Thr Gly Leu Lys Glu Leu Pro Met Arg Asn Leu Gln Glu lie Leu 

His Gly Ala Val Arg Phe Ser Asn Asn Pro Ala Leu Cys Asn Val Glu 

Ser Ile Gin Trp Arg Asp Ile Val Ser Ser Asp Phe Leu Ser Asn Met 

Ser Met Asp Phe Gln Asn His Leu Gly Ser Cys Gln Lys Cys Asp Pro 

Ser Cys Pro Asn Gly Ser Cys Trp Gly Ala Gly Glu Glu Asn Cys Gln 

Lys Leu Thr Lys lie lie Cys Ala Gin Gin Cys Ser Gly Arg Cys Arg 

Gly Lys Ser Pro Ser Asp Cys Cys His Asn Gln Cys Ala Ala Gly Cys 

Thr Gly Pro Arg Glu Ser Asp Cys Leu Val Cys Arg Lys Phe Arg Asp 

Glu Ala Thr Cys Lys Asp Thr Cys Pro Pro Leu Met Leu Tyr Asn Pro 

Thr Thr Tyr Gin Met Asp Val Asn Pro Glu Gly Lys Tyr Ser Phe Gly 

Ala Thr Cys Val Lys Lys Cys Pro Arg Asn Tyr Val Val Thr Asp His 

Gly Ser Cys Val Arg Ala Cys Gly Ala Asp Ser Tyr Glu Met Glu Glu 

Asp Gly Val Arg Lys Cys Lys Cys Glu Gly Pro Cys Arg Lys Val 325 330 335

Cys Asn Gly lle Gly lle Gly Glu Phe Lys Asp Ser Leu Ser lle Asn 340 345 350

Ala Thr Asn Ile Lys His Phe Lys Asn Cys Thr Ser Ile Ser Gly Asp 355 360 365

Leu His Ile Leu Pro Val Ala Phe Arg Gly Asp Ser Phe Thr His Thr 370 375 380

Pro Pro Leu Asp Pro Gln Glu Leu Asp Ile Leu Lys Thr Val Lys Glu 385 390 395 400

Ile Thr Gly Phe Leu Leu Ile Gln Ala Trp Pro Glu Asn Arg Thr Asp 405 410 415

Leu His Ala Phe Glu Asn Leu Glu IIe IIe Arg Gly Arg Thr Lys Gln 420 425 430

His Gly Gln Phe Ser Leu Ala Val Val Ser Leu Asn Ile Thr Ser Leu 435 440 445

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Phe Gly Thr Ser Gly Gln Lys Thr Lys IIe IIe Ser Asn Arg Gly Glu 485 490 495

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Val Ser Arg Gly Arg Glu Cys Val Asp Lys Cys Lys Leu Leu Glu Gly 530 535 540

Glu Pro Arg Glu Phe Val Glu Asn Ser Glu Cys Ile Gln Cys His Pro 545 550 555 560

Glu Cys Leu Pro Gln Ala Met Asn Ile Thr Cys Thr Gly Arg Gly Pro 565 570 575

Asp Asn Cys lle Gln Cys Ala His Tyr lle Asp Gly Pro His Cys Val 580 585 590

Lys Thr Cys Pro Ala Gly Val Met Gly Glu Asn Asn Thr Leu Val Trp 595 600 605

Lys Tyr Ala Asp Ala Gly His Val Cys His Leu Cys His Pro Asn Cys 610 615 620

Thr Tyr Gly Pro Gly Asn Glu Ser Leu Lys Ala Met Leu Phe Cys Leu 625 630 635 640

Phe Lys Leu Ser Ser Cys Asn Gln Ser Asn Asp Gly Ser Val Ser His 645 650 655

Arg Ser Gly Ser Pro Ala Ala Gln Glu Ser Cys Leu Gly Trp lle Pro 660 665 670

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Gly Thr Ser Asn Lys Leu Thr Gln Leu Gly Thr Phe Glu Asp His Phe

Leu Ser Leu Gln Arg Met Phe Asn Asn Cys Glu Val Val Leu Gly Asn

Leu Glu lle Thr Tyr Val Gin Arg Asn Tyr Asp Leu Ser Phe Leu Lys

Thr lie Gin Glu Val Ala Gly Tyr Val Leu ile Ala Leu Asn Thr Val

Glu Arg lie Pro Leu Glu Asn Leu Gln lie lie Arg Gly Asn Met Tyr

Tyr Glu Asn Ser Tyr Ala Leu Ala Val Leu Ser Asn Tyr Asp Ala Asn

Lys Thr Gly Leu Lys Glu Leu Pro Met Arg Asn Leu Gln Glu lle Leu

His Gly Ala Val Arg Phe Ser Asn Asn Pro Ala Leu Cys Asn Val Glu

Ser Ile Gln Trp Arg Asp Ile Val Ser Ser Asp Phe Leu Ser Asn Met 165 170 175

Ser Met Asp Phe Gln Asn His Leu Gly Ser Cys Gln Lys Cys Asp Pro 180 185 190

Ser Cys Pro Asn Gly Ser Cys Trp Gly Ala Gly Glu Glu Asn Cys Gln 195 200 205

Lys Leu Thr Lys lie lie Cys Ala Gin Gin Cys Ser Gly Arg Cys Arg 210 215 220

Gly Lys Ser Pro Ser Asp Cys Cys His Asn Gln Cys Ala Ala Gly Cys 225 230 235 240

Thr Gly Pro Arg Glu Ser Asp Cys Leu Val Cys Arg Lys Phe Arg Asp 245 250 255

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Ala Thr Cys Val Lys Lys Cys Pro Arg Asn Tyr Val Val Thr Asp His 290 295 300

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Asp Gly Val Arg Lys Cys Lys Cys Glu Gly Pro Cys Arg Lys Val 325 330 335

Cys Asn Gly lle Gly lle Gly Glu Phe Lys Asp Ser Leu Ser lle Asn 340 345 350 Ala Thr Asn lle Lys His Phe Lys Asn Cys Thr Ser lle Ser Gly Asp 355 360 365

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Pro Pro Leu Asp Pro Gin Glu Leu Asp lie Leu Lys Thr Val Lys Glu 385 390 395 400

Ile Thr Gly Phe Leu Leu Ile Gln Ala Trp Pro Glu Asn Arg Thr Asp 405 410 415

Leu His Ala Phe Glu Asn Leu Glu IIe IIe Arg Gly Arg Thr Lys Gln 420 425 430

His Gly Gln Phe Ser Leu Ala Val Val Ser Leu Asn lle Thr Ser Leu 435 440 445

Gly Leu Arg Ser Leu Lys Glu ile Ser Asp Gly Asp Val ile ile Ser 450 455 460

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Phe Gly Thr Ser Gly Gln Lys Thr Lys IIe IIe Ser Asn Arg Gly Glu 485 490 495

Asn Ser Cys Lys Ala Thr Gly Gln Val Cys His Ala Leu Cys Ser Pro 500 505 510

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 Glu Cys Leu Pro Gln Ala Met Asn Ile Thr Cys Thr Gly Arg Gly Pro 565 570 575

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Lys Thr Cys Pro Ala Gly Val Met Gly Glu Asn Asn Thr Leu Val Trp 595 600 605

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Phe Lys Leu Ser Ser Cys Asn Gln Ser Asn Asp Gly Ser Val Ser His 645 650 655

Gin Ser Gly Ser Leu Ala Ala Gin Glu Ser Cys Leu Gly Trp lle Pro 660 665 670

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Gly Thr Ser Asn Lys Leu Thr Gln Leu Gly Thr Phe Glu Asp His Phe 35 40 45

Leu Ser Leu Gin Arg Met Phe Asn Asn Cys Glu Val Val Leu Giy Asn 50 55 60

Leu Glu lie Thr Tyr Val Gln Arg Asn Tyr Asp Leu Ser Phe Leu Lys 65 70 75 80

Thr Ile Gin Glu Val Ala Gly Tyr Val Leu Ile Ala Leu Asn Thr Val 85 90 95

Glu Arg lie Pro Leu Glu Asn Leu Gln lie lie Arg Gly Asn Met Tyr 100 105 110

Tyr Glu Asn Ser Tyr Ala Leu Ala Val Leu Ser Asn Tyr Asp Ala Asn 115 120 125

Lys Thr Gly Leu Lys Glu Leu Pro Met Arg Asn Leu Gln Glu lle Leu 130 135 140

His Gly Ala Val Arg Phe Ser Asn Asn Pro Ala Leu Cys Asn Val Glu 145 150 155 160

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Ser Met Asp Phe Gln Asn His Leu Gly Ser Cys Gln Lys Cys Asp Pro 180 185 190



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Lys Leu Thr Lys IIe IIe Cys Ala Gin Gin Cys Ser Gly Arg Cys Arg 210 215 220

Gly Lys Ser Pro Ser Asp Cys Cys His Asn Gln Cys Ala Ala Gly Cys 225 230 235 240

Thr Gly Pro Arg Glu Ser Asp Cys Leu Val Cys Arg Lys Phe Arg Asp 245 250 255

Glu Ala Thr Cys Lys Asp Thr Cys Pro Pro Leu Met Leu Tyr Asn Pro 260 265 270

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Ala Thr Cys Val Lys Lys Cys Pro Arg Asn Tyr Val Val Thr Asp His 290 295 300

Gly Ser Cys Val Arg Ala Cys Gly Ala Asp Ser Tyr Glu Met Glu Glu 305 310 315 320

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Pro Pro Leu Asp Pro Gin Glu Leu Asp Ile Leu Lys Thr Vai Lys Glu

lie Thr Gly Phe Leu Leu ile Gln Ala Trp Pro Glu Asn Arg Thr Asp 405 410 415

Leu His Ala Phe Glu Asn Leu Glu lle lle Arg Gly Arg Thr Lys Gln 420 425 430

His Gly Gln Phe Ser Leu Ala Val Val Ser Leu Asn Ile Thr Ser Leu 435 440 445

Gly Leu Arg Ser Leu Lys Glu lle Ser Asp Gly Asp Val lle lle Ser 450 455 460

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Phe Gly Thr Ser Gly Gln Lys Thr Lys IIe IIe Ser Asn Arg Gly Glu 485 490 495

Asn Ser Cys Lys Ala Thr Gly Gln Val Cys His Ala Leu Cys Ser Pro 500 505 510

Glu Gly Cys Trp Gly Pro Glu Pro Arg Asp Cys Val Ser Cys Arg Asn 515 520 525

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Glu Cys Leu Pro Gln Ala Met Asn Ile Thr Cys Thr Gly Arg Gly Pro 565 570 575

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Thr Tyr Gly Pro Gly Asn Glu Ser Leu Lys Ala Met Leu Phe Cys Leu 625 630 635 640

Phe Lys Leu, Ser Ser Cys Asn Gln Ser Asn Asp Gly Ser Val Ser His 645 650 655

Gin Ser Gly Ser Pro Ala Ala Gin Giu Ser Cys Leu Gly Trp lle Pro 660 665 670

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5

10

15

Val Trp Pro Ser Gly Tyr Val Glu Trp Gln Trp lle Leu Lys Thr Phe

20

25

30

Trp lle